



# Brookline Street Reconstruction







# You Choose











Ready,  
Set.  
Go.....!



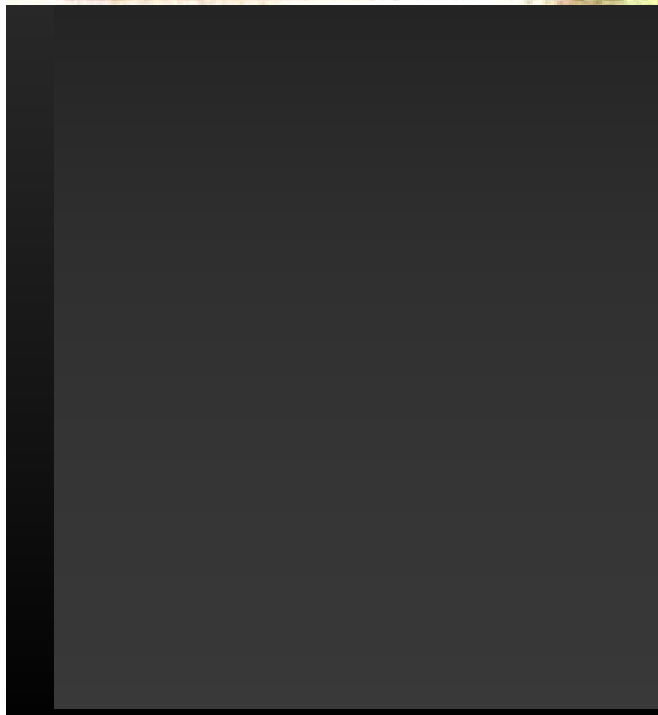
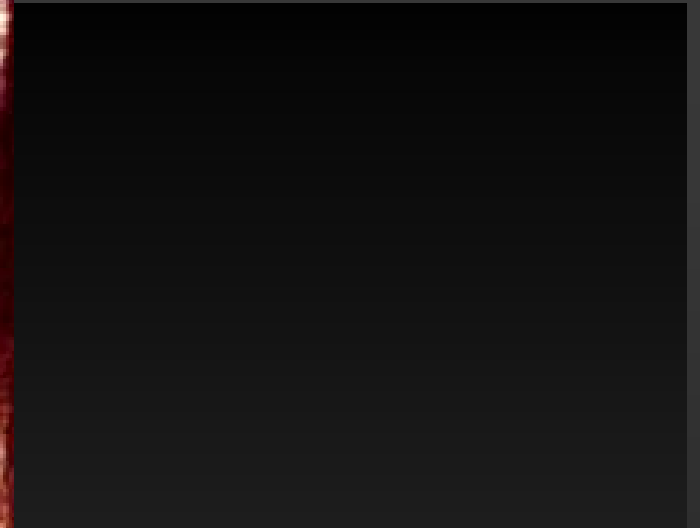
Ready,  
Set,  
Go.....!













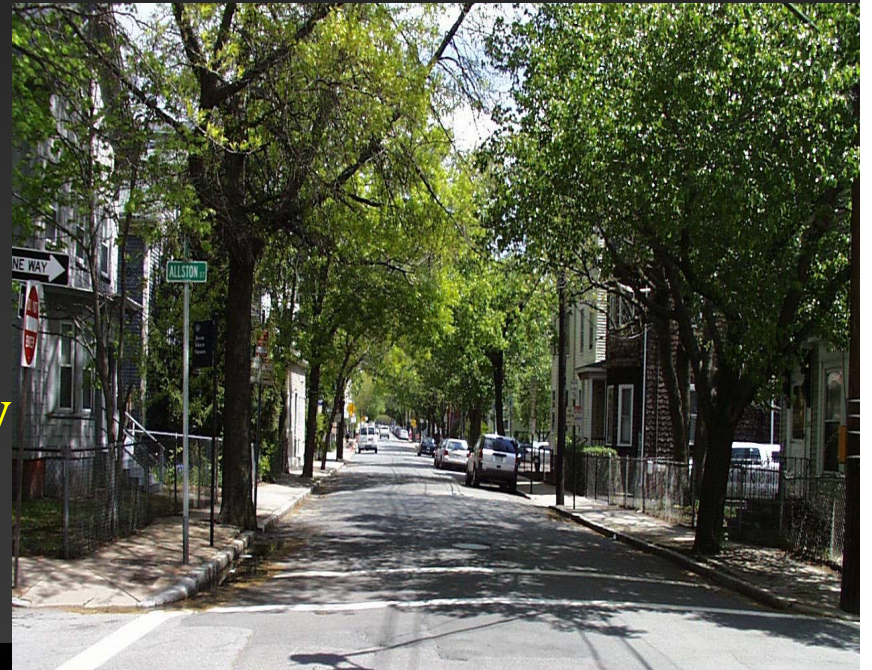


# Streetscape Improvements



# Goals For Brookline Street

- Improve Safety & Comfort for All Users
- Reduce Traffic Speeds
- Improve Pedestrian Experience
- Improve Conditions for Bicycling
- Improve Pedestrian Crossings
- Ensure Safe and Convenient Bus Travel
- Balance Parking and Visibility at Corners







Crossing the Street Should be Safe and Comfortable



# Crosswalk Visibility



International or “zebra” striping is best





Drainage:

Make sure  
it works!





Improve Conditions for Cycling



# Safe and Convenient Bus Travel

bus travel



## Review Bus Stop Conditions



# Transit: Provide Easy, Safe Crossings







Improve Sight Lines at Intersections





Rationalize signs and avoid visual clutter



# Increase Streetscape Amenities



Trees  
Benches  
Pavers







## Hastings Square, Nunes Park, Pacific Street Park

Access to Parks









**Yo! Please Go Slow.**



# TRAFFIC CALMING

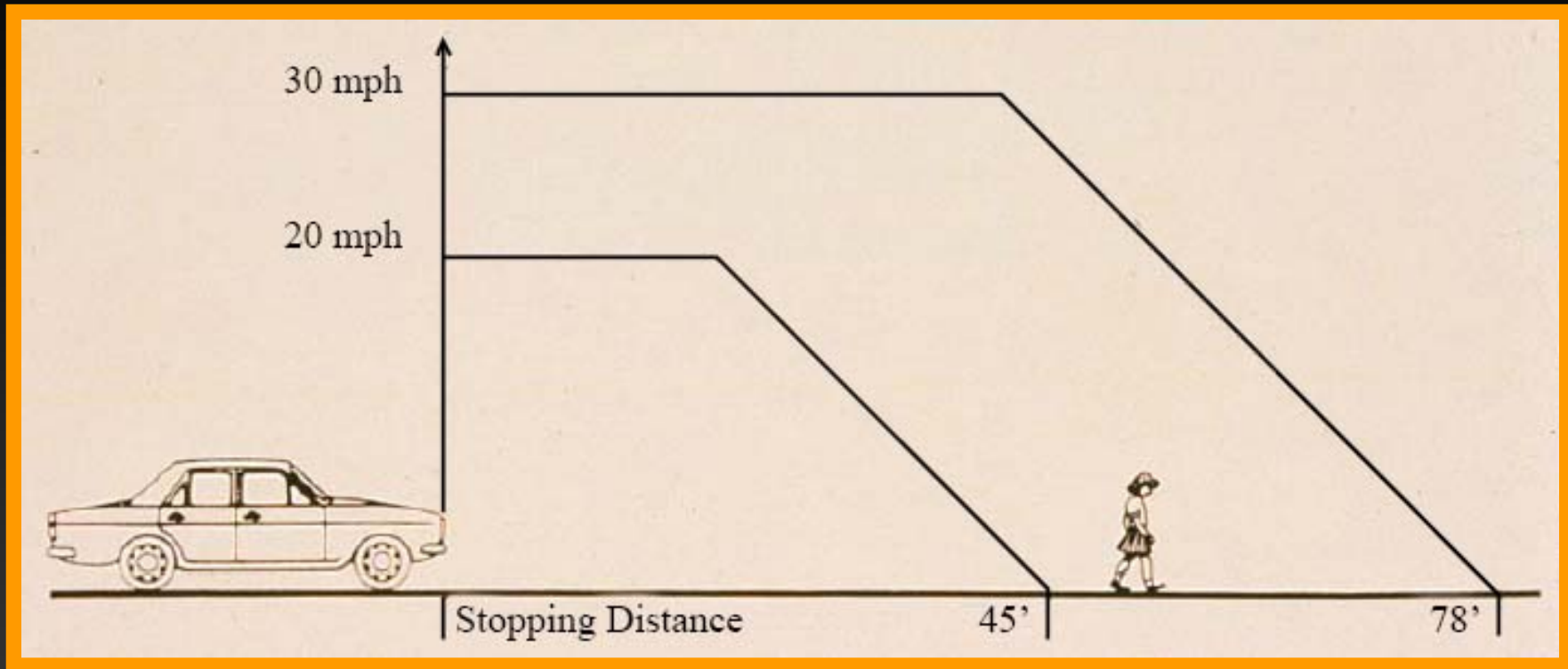
## FATALITIES BY SPEED

Percent fatal to Pedestrians





# Slower Is Safer

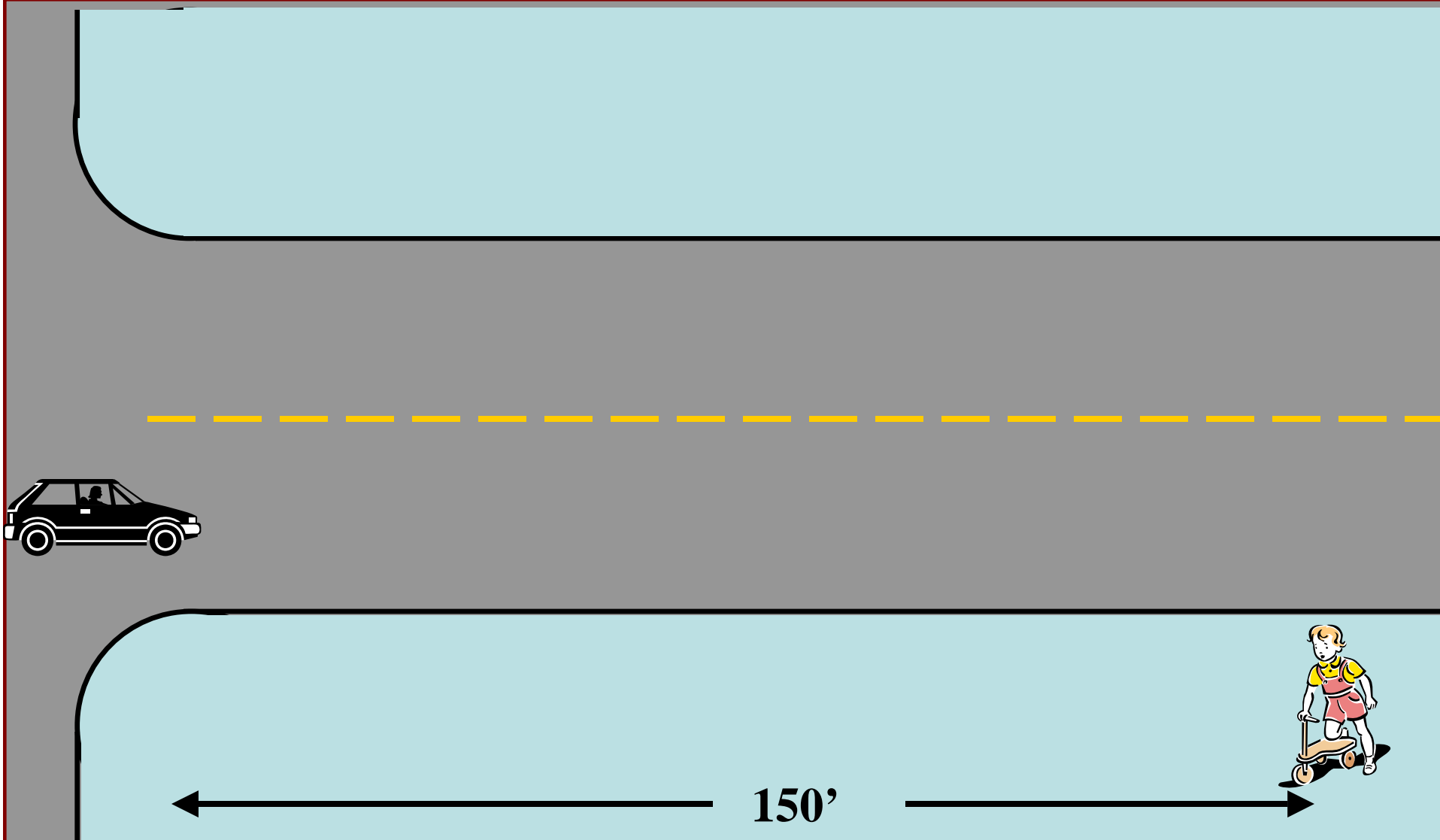


Distance needed for a vehicle to stop vs. speed:

30 mph ===== Approximately 78 feet.

20 mph ===== Approximately 45 feet.

# Pedestrian Safety: Speed as a Factor





# First scenario: Speed 25 MPH

100' = distance covered in 2.5  
sec. perception/reaction time



100'

150'

# First scenario: Speed 25 MPH

100' = distance covered in 2.5  
sec. perception/reaction time



100'

150'



# First scenario: Speed 25 MPH

Driver applies brakes



100'

150'

# First scenario: Speed 25 MPH

50' stopping distance  
(wet pavement)



100'

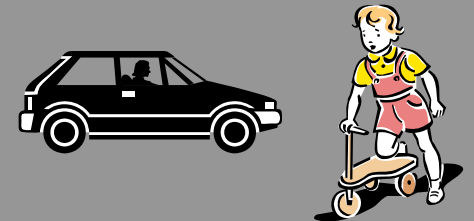
50'

150'



## First scenario: Speed 25 MPH

**Result: Nothing happens beyond  
one scared child, driver & parent!**



100'

50'

150'

## Second scenario: Speed 38MPH

140' = distance covered in 2.5  
sec. perception/reaction time



140'

150'



## Second scenario: Speed 38MPH

140' = distance covered in 2.5  
sec. perception/reaction time



140'

150'

## Second scenario: Speed 38MPH

Driver applies brakes



140'

150'



## Second scenario: Speed 38MPH

In the last 10' car slows  
to 36 MPH



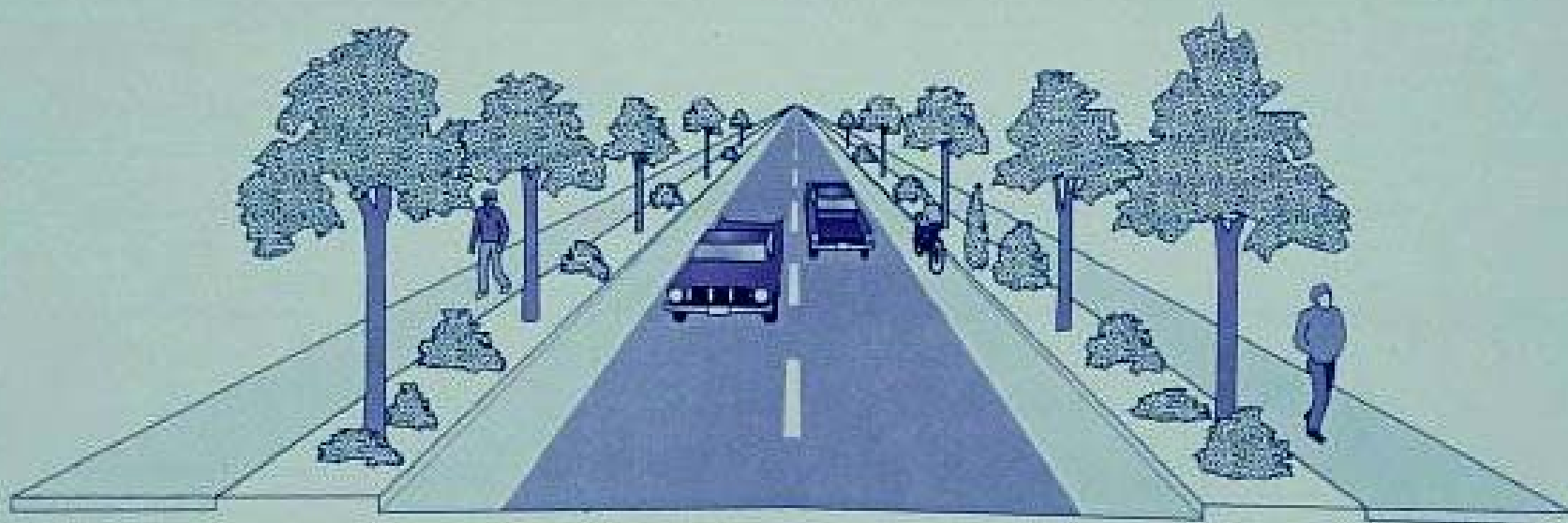
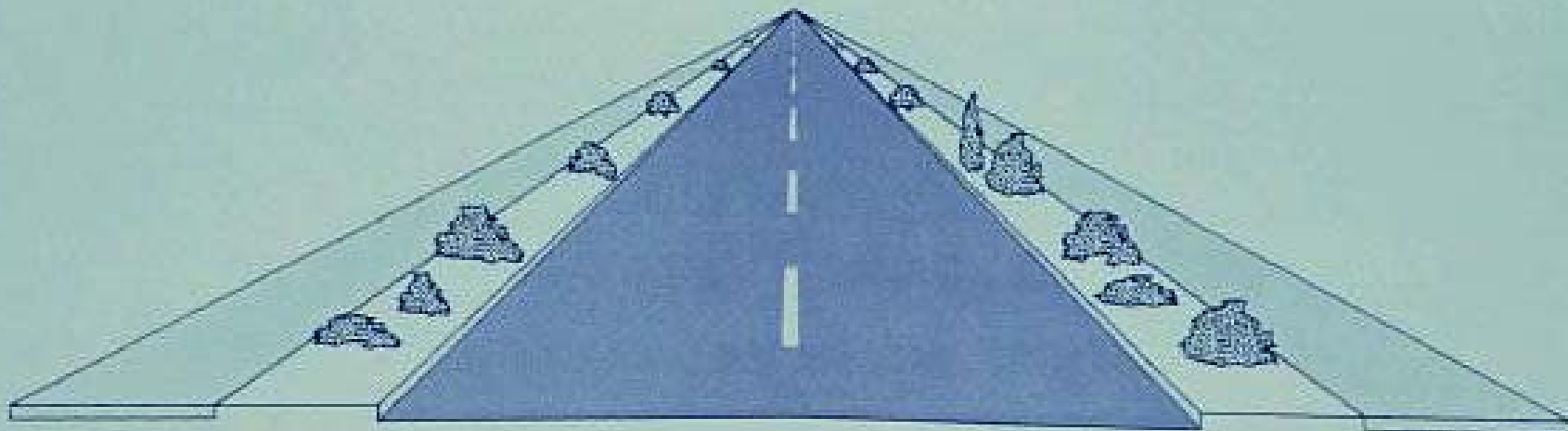
140'

150'

# Traffic Calming

- Narrow the road
  - Add Parking
  - Pavement Markings (edge line for bikes)
  - Visual Narrowing by Adding Trees
- Horizontal Devices: make the road less straight
  - Chicanes
  - Crossing Islands
- Vertical devices: make vehicles go over something
  - Raised intersections & crosswalks









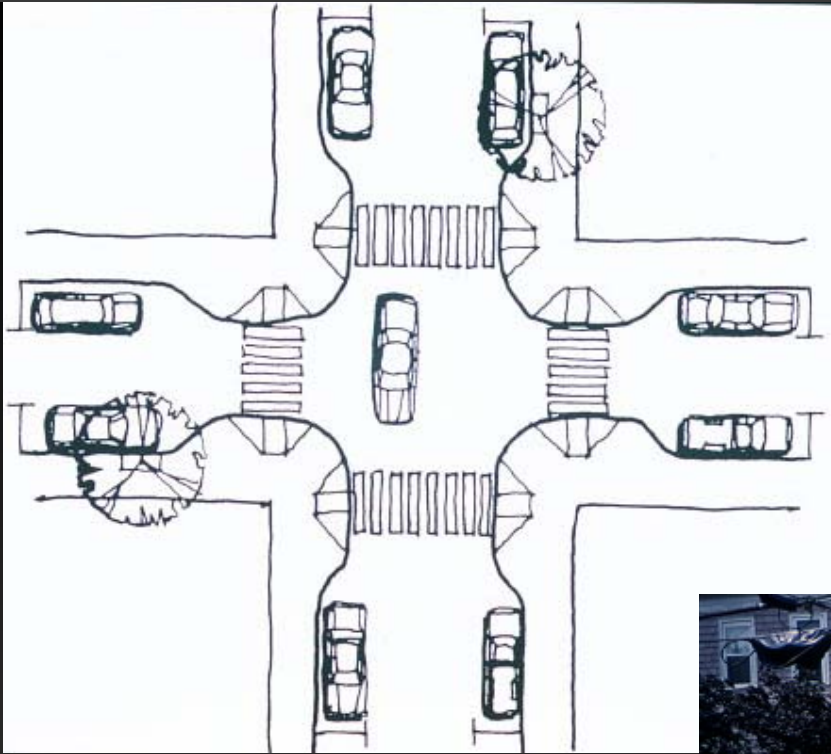






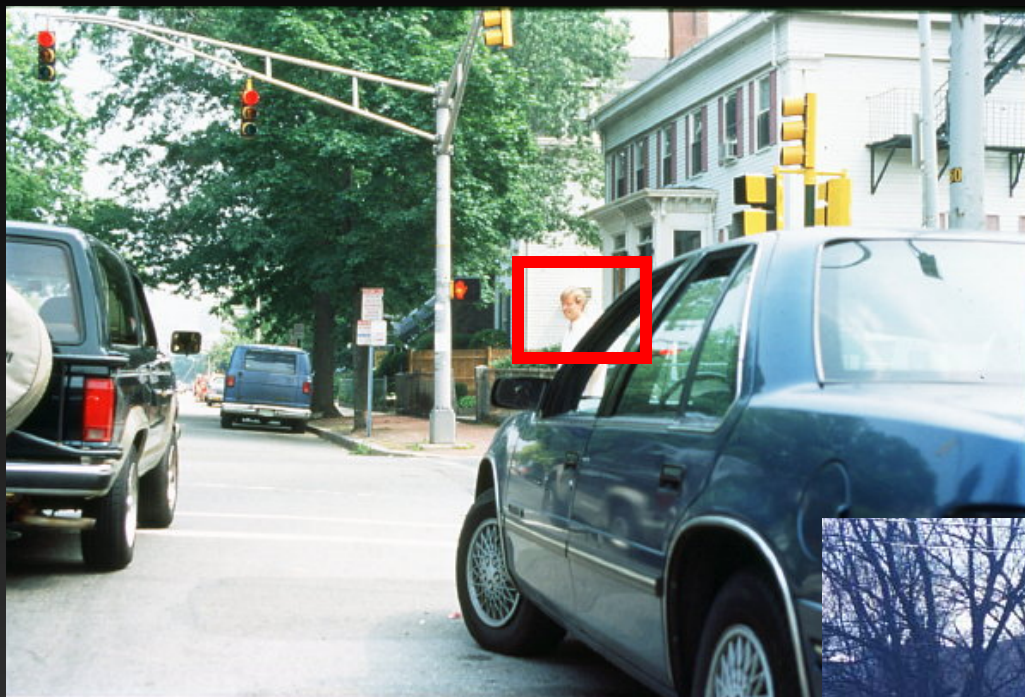
Edge Ledge Line Visually Narrows Road

# Curb Extensions





# Find the Pedestrian







Curb extensions reduce crossing distances and improve visibility







A place for  
street furniture











# Chicanes

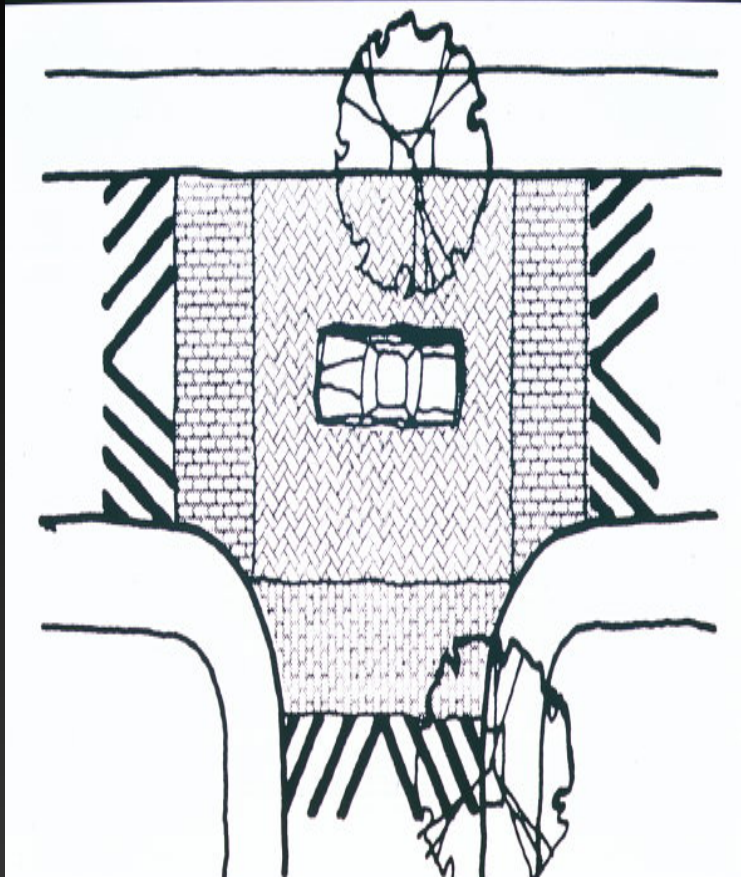






Chicanes Create Horizontal Curvature to Slow Speeds

# Raised intersection

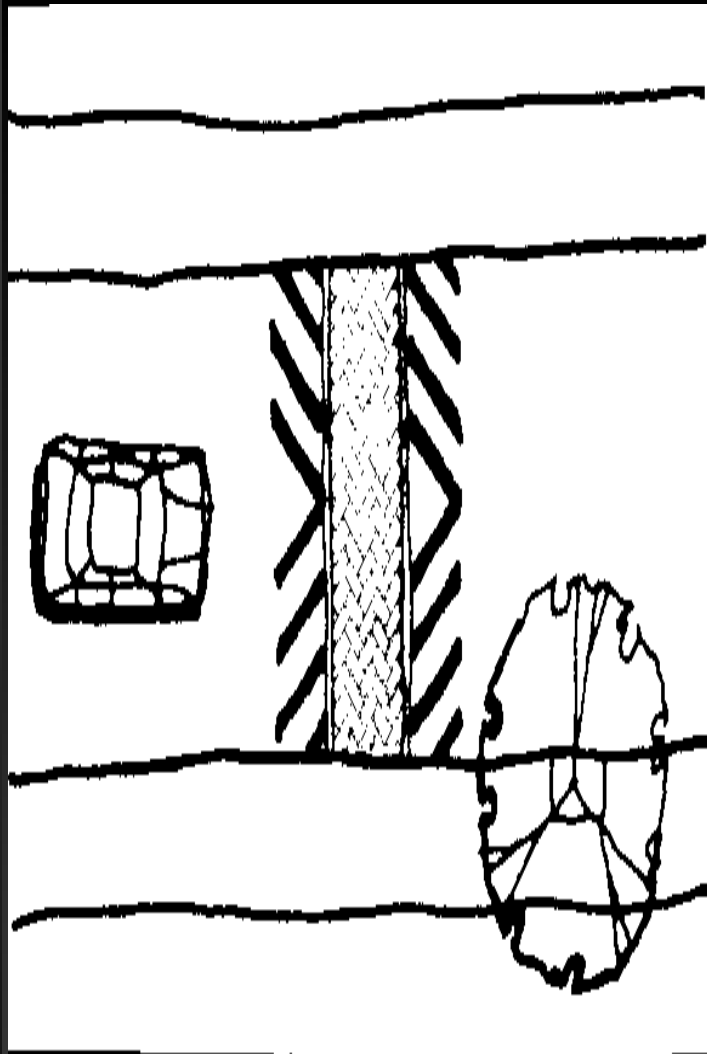








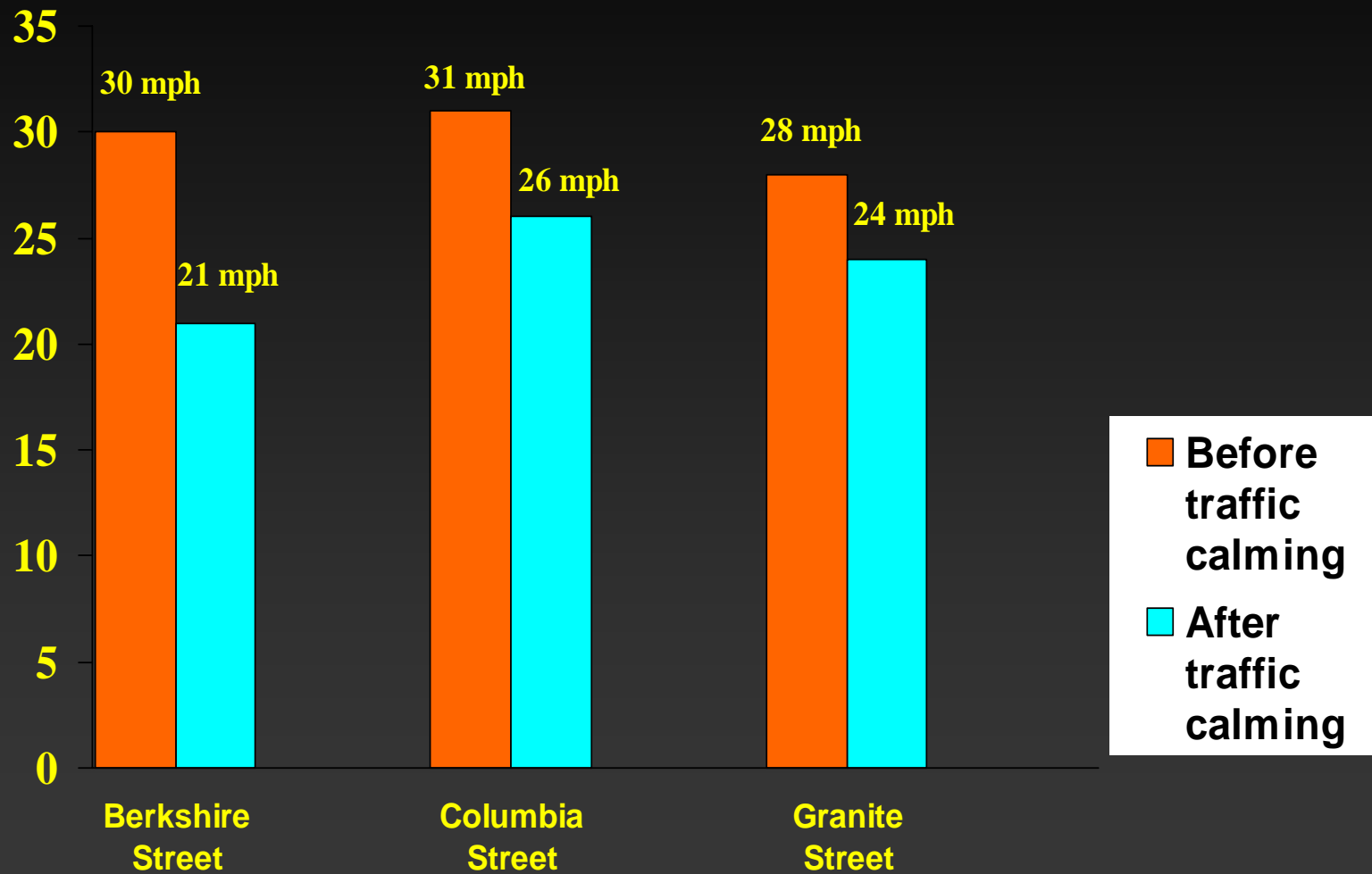
# Raised Crosswalk







## Effects of traffic calming projects on speeds





# Brookline Street Speeds

(at Tudor St)

7-8 AM 30mph

2-3 PM 28 mph

Speed  
Limit



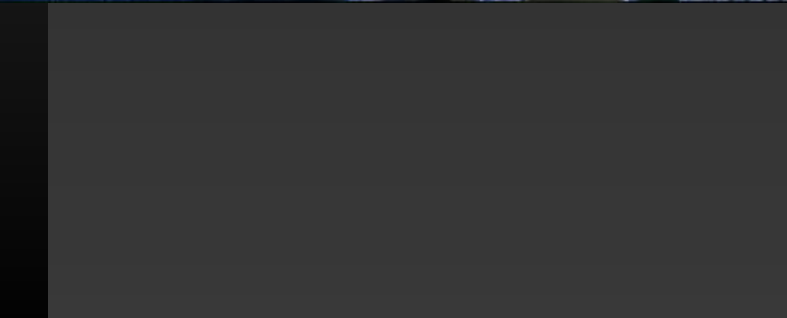
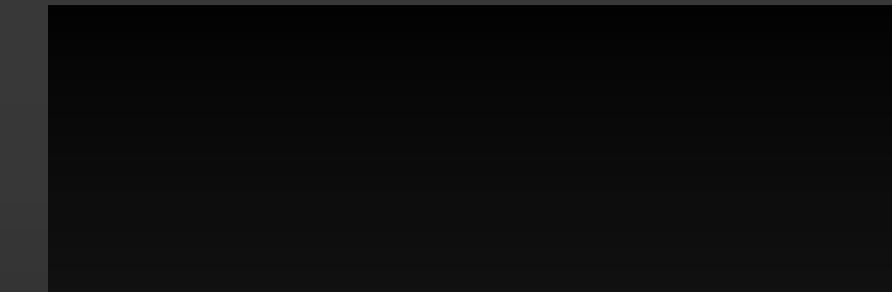
More than safety





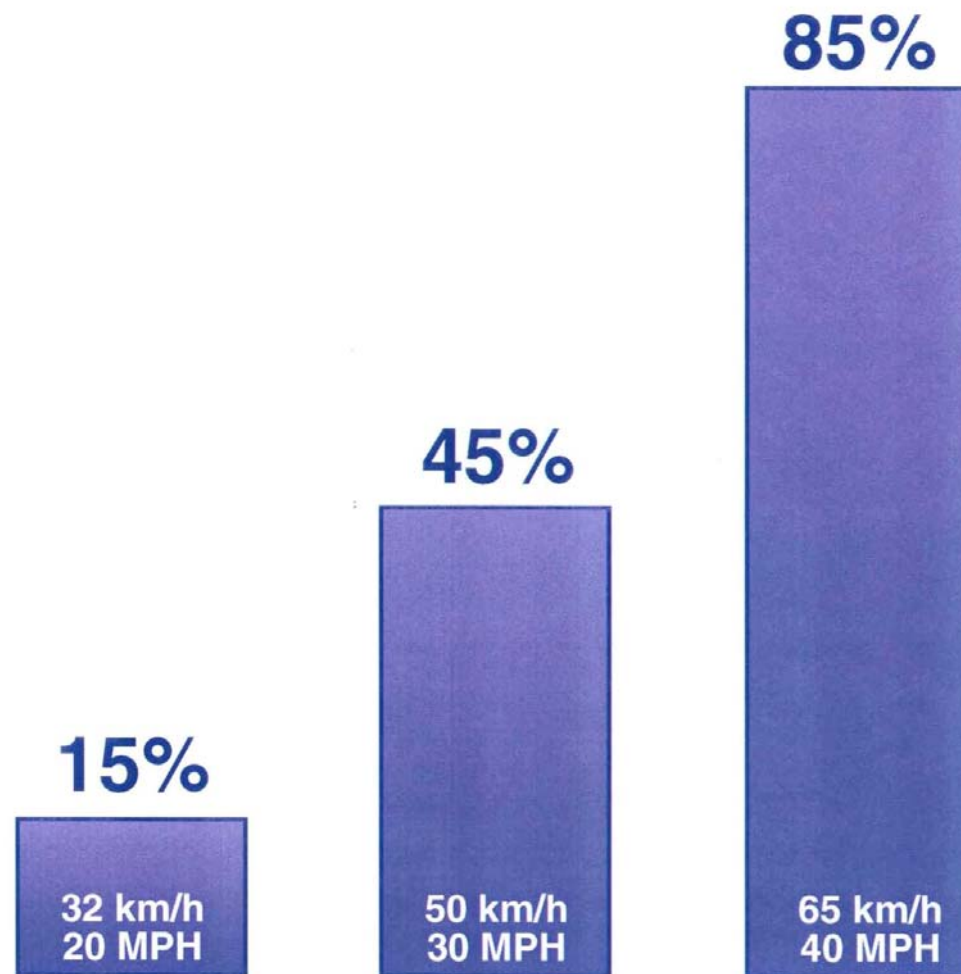








# The relationship between speed and severity of ped/vehicle crashes

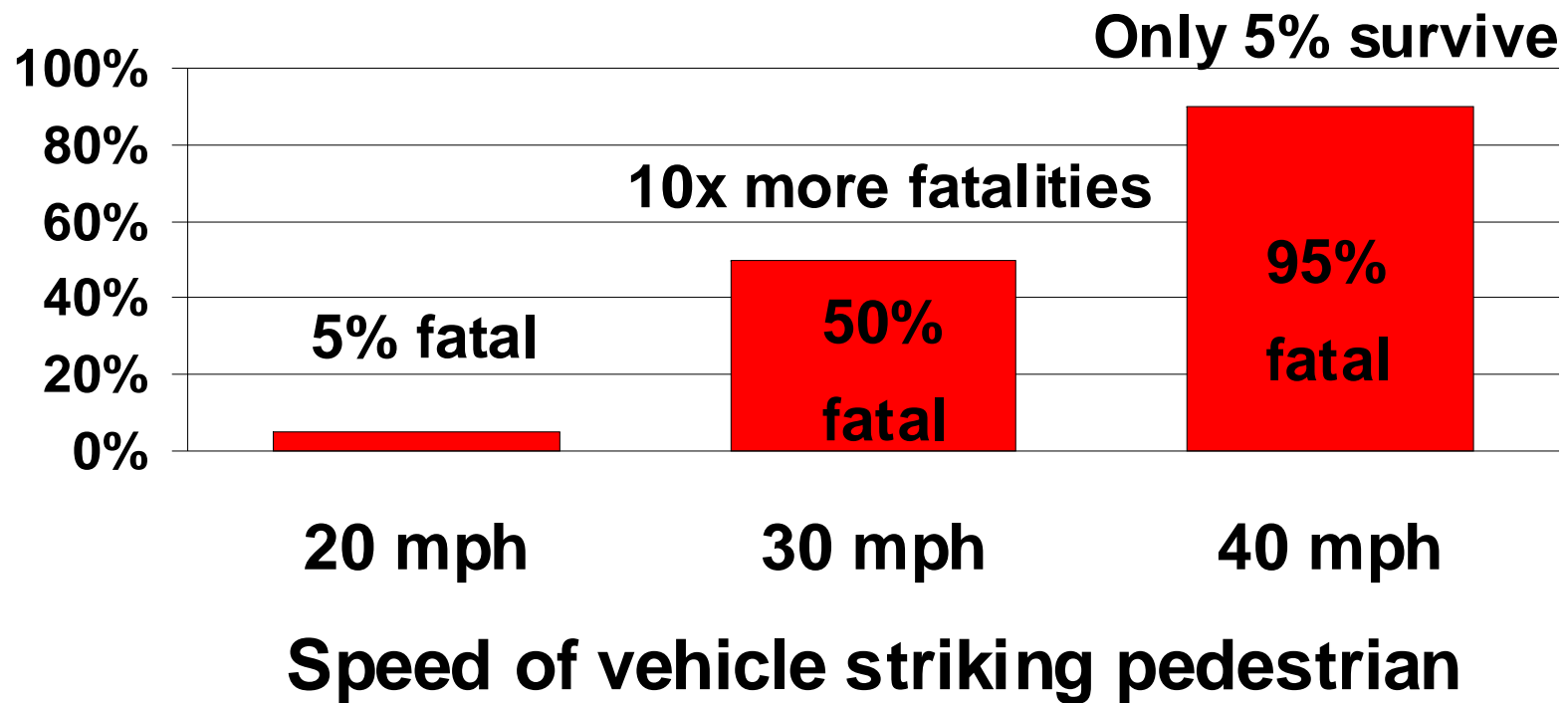


**Pedestrians' chances of death if hit by a motor vehicle**

SOURCE: *Killing Speed and Saving Lives*, UK Department of Transportation

# Moderate Speeds Kill Pedestrians

## Pedestrian **Fatalities** by Speed







# Children Walk Less and Weigh More

